

इंटरनेट

मानक

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“जानने का अधिकार, जीने का अधिकार”

Mazdoor Kisan Shakti Sangathan

“The Right to Information, The Right to Live”

“पुराने को छोड़ नये के तरफ”

Jawaharlal Nehru

“Step Out From the Old to the New”

IS 7713 (1975): Retractor, Light Model, Weislander's
Pattern [MHD 4: Ear, Nose and Throat Surgery Instruments]



“ज्ञान से एक नये भारत का निर्माण”

Satyanarayan Gangaram Pitroda

“Invent a New India Using Knowledge”



“ज्ञान एक ऐसा खजाना है जो कभी चुराया नहीं जा सकता है”

Bhartrhari—Nitiśatakam

“Knowledge is such a treasure which cannot be stolen”

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Indian Standard
SPECIFICATION FOR
RETRACTOR, LIGHT MODEL, WEISLANDER'S PATTERN

1. Scope — Dimensional and other requirements for light model Weislander's pattern retractor used in ENT surgery.

2. Shape and Dimensions — As shown in Fig. 1.

2.1 Tolerance — Deviation of ± 2.5 percent shall be allowed.

3. Materials

| <i>Component</i> | <i>Material</i> | <i>Conforming to</i> |
|-------------------------------------|-----------------|---|
| Arms | Stainless steel | Designation 20Cr13 or 30Cr13 of IS : 6603-1972 ' Specification for stainless steel bars and flats ' |
| Ratchet arrangement and pivot screw | Stainless steel | Designation 20Cr13 or 30Cr13 or 02Cr18 Ni11 of IS : 6603-1972 |
| Spring | Stainless steel | Designation 30Cr13 of Table 1 of IS : 1570 (Part V) - 1972 ' Schedules for wrought steels : Part V Stainless and heat-resisting steels (first revision) ' |

4. Workmanship and Finish

4.1 All the surfaces, except the ratchet teeth, shall be smooth and free from pits, and the edges shall be even.

4.2 The edges of the retracting prongs shall taper to a blunt point.

4.3 The retractor arms shall open and close smoothly without any friction or undue resistance or play at the joint.

4.4 The ratchet teeth shall be well cut, clean, uniform, regular and evenly spaced.

4.5 The ratchet teeth shall engage accurately and securely and shall effectively lock the retractor at any desired position.

4.6 The ratchet arm with the finger rest pressed shall swivel freely. The spring shall not be too stiff.

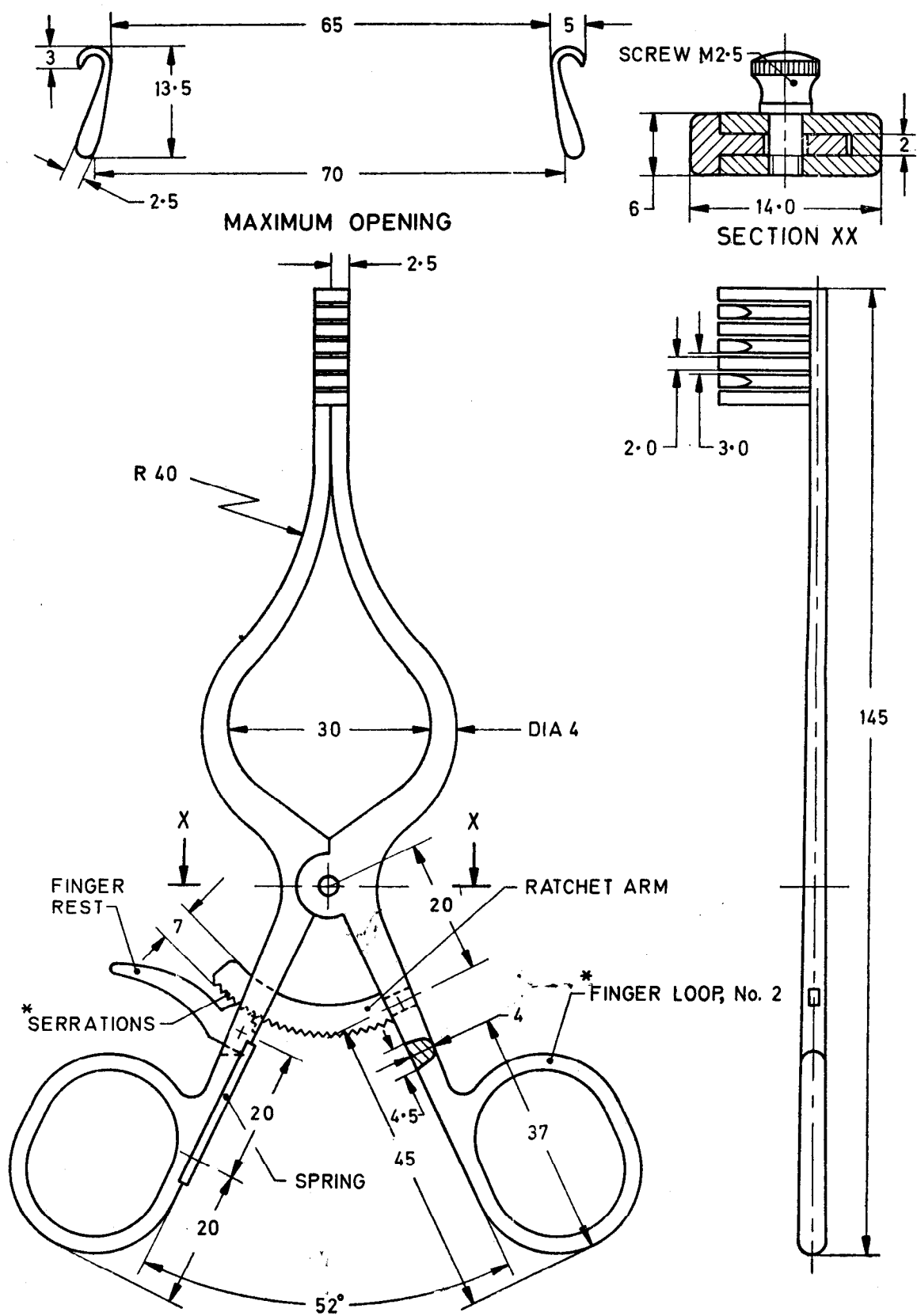
4.7 The retractor shall be finished bright and passivated.

5. Heat Treatment — The retractor, except the spring shall be hardened and tempered to a hardness of 380 to 430 HV. The spring shall be hardened and tempered to a hardness of 420 to 470 HV.

6. Tests

6.1 Open the arms of the retractor to about 65 mm measured at the tip. Grip the retractor at the retracting blades and apply a compressive force of 100 N (10 kgf approximately) for two minutes trying to close the blades. The ratchet shall not slip under the force and shall show no sign of damage on removal of the force. Repeat the test with two different arms openings.

6.2 Corrosion Resistance — The instrument shall satisfy the boiling and autoclaving test as mentioned in IS : 7531-1975 ' Method for boiling and autoclaving test for corrosion resistance of stainless steel surgical instruments '.



* See IS : 3642-1966 'General requirements for surgical instruments'.

All dimensions in millimetres.

FIG. 1 RETRACTOR (WEISLANDER'S PATTERN)

6.3 Subject to agreement between the purchaser and the supplier the instrument may be put to the following test:

Copper Sulphate Test — Scrub the sample with soap and warm water, rinse in hot water and then dip in 95 percent ethyl alcohol. Dry the sample. Immerse in copper sulphate solution at room temperature for 6 minutes and wash off with fresh water or wet cotton wool. Composition of the solution shall be as follows:

| | |
|---|---------|
| Copper sulphate ($\text{CuSO}_4 \cdot 5\text{H}_2\text{O}$) | 4.0 g |
| Sulphuric acid (H_2SO_4) (sp gr 1.84) | 10.0 g |
| Distilled water [see IS : 1070-1960 Specification for water, distilled quality (revised)] | 90.0 ml |

No red stains or spots on the sample shall be allowed but dulling of the polished surface may be permitted.

7. Marking — Each retractor shall be marked with the following:

- Manufacturer's name, initials or recognized trade-mark; and
- The words ' stainless steel ' or letters ' SS '.

7.1 ISI Certification Marking — Details available with the Indian Standards Institution.

8. Packing — Each retractor shall be wrapped in moisture-proof paper or put in a polyethylene bag. Each such retractor shall be packed in an individual cardboard carton. The retractor may also be packed as agreed to between the purchaser and the supplier.